

Notice of Allowability

Application No.

09/716,221

Applicant(s)

INOUE ET AL.

Examiner

Art Unit

Pramila Parthasarathy

2136

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 9/26/2005.
2. ☒ The allowed claim(s) is/are 2,5,6,8,11,12,14,17 AND 18, RENUMBERED AS CLAIMS 1-9.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

DETAILED ACTION

1. This action is in response to the amendments/remarks filed on September 26, 2005.

Response to Arguments

2. Applicant, in response to non-final action mailed on June 28, 2005, cancelled Claims 1, 3, 4, 7, 9, 10, 13, 15, 16 and 19 and amended Claims 2, 5, 6, 8, 11, 12, 14, 17 and 18. Applicant's arguments see page 1-2, filed September 26, 2005, with respect to Claims 1 – 19 have been fully considered and are persuasive. The objections of Claims 2, 5, 6, 8, 11, 12, 14, 17 and 18 has been withdrawn.

Allowable Subject Matter

3. Claims 2, 5, 6, 8, 11, 12, 14, 17 and 18 are allowed.
4. The following is an examiner's statement of reasons for allowance: The Admitted prior art Nakamura et al. (U.S. Patent 6,185,312) and Barton (U.S. Patent Number 6,047,374), disclose an apparatus for embedding information comprising: a blocking step for dividing data to be processed into blocks; an orthogonal transform step for obtaining coefficients by carrying out orthogonal transformation for each block;

Art Unit: 2136

determining coefficients in which the watermark-information will be embedded by using a random sequence which is generated by initial value; sequentially embedding the watermark-information, which has arbitrary length of bits, by quantizing value of said coefficients using a predetermined value for quantization; and carrying out inverse orthogonal transformation for modified coefficients to form block in which the watermark-information is embedded, as well as combining the divided blocks and reconstructing the original form. Furthermore, the embedded information may only be extracted as authorized and may be used to verify the original digital data has not been modified.

However, the admitted prior art do not disclose, teach or suggest a key data extraction portion operable to extract key data embedded by the specific apparatus from transform coefficients of a lowest frequency band (MRA) among the plurality of frequency bands; an authentication data embedding portion operable to embed the authentication data in transform coefficients of the frequency bands exclusive of the MRA (MRR) among the plurality of frequency bands; and band synthesis portion operable to reconstruct the digital image signal in which the information has been embedded by using the MRA and the MRR to which data embedding processing is subjected; as recited in independent and in combination with other elements of claims.

Art Unit: 2136

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pramila Parthasarathy whose telephone number is 571-272-3866. The examiner can normally be reached on Tuesday – Thursday 8:00a.m. To 3:00p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 571-232-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR only. For more information about the PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Pramila Parthasarathy

October 24, 2005.


AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
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